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LISTING OF THE CLAIMS

1 1. (Original) A method for detecting presence of a
2 user at a telecommunication terminal, comprising the steps of:
3 testing acoustic paths communicating audio
4 information from and back to the telecommunication terminal;
5 and
6 determining the presence of the user based on
7 changes in the acoustic paths.

1 2. (Original) The method of claim 1 wherein the step
2 of testing comprises the steps of forming a model of the
3 acoustic paths;
4 detecting modifications in the acoustic paths to update
5 the model of the acoustic paths; and
6 the step of determining comprises the step of using
7 the detected modifications to determine changes in the acoustic
8 paths.

1 3. (Original) The method of claim 2 wherein the step
2 of detecting comprises the steps of applying audio information
3 transmitted from the telecommunication terminal to the model of
4 the acoustic paths;

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5 receiving the transmitted audio information back by
6 the telecommunication terminal via the acoustic paths;
7 determining a difference between an output of the
8 model of acoustic paths from the received audio information;
9 and
10 calculating a correction to the model of the acoustic
11 paths using the difference and transmitted audio information.

1 4. (Original) The method of claim 1 wherein the audio
2 information is at one of within human hearing, above human
3 hearing and below human hearing.

1 5. (Original) The method of claim 1 wherein the step
2 of determining the presence comprises the steps of developing
3 the model of the acoustic paths with the user presence and not
4 presence at the telecommunication terminal; and
5 calculating a threshold of changes in the model of the
6 acoustic paths that represents the presence or non-presence of
7 the user at the telecommunication terminal.

1 6. (Canceled)

1 7. (Canceled)

1 8. (Canceled)

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1 9. (Original) An apparatus for detecting presence of a
2 user at a telecommunication terminal, comprising:
3 a transmitter for transmitting audio information;
4 a receiver for receiving the transmitted audio
5 information via acoustic paths;
6 a model of the acoustic paths for using the audio
7 information before transmission and for producing an audio
8 output;
9 a comparator for determining a difference between the
10 audio output and received audio information;
11 a modifier for iteratively generating modifications for
12 the model of the acoustic paths in responsive to the difference
13 and audio information before transmission; and
14 a controller responsive to the modifications for
15 detecting the presence or non-presence of the user at the
16 telecommunication terminal.

1 10. (Original) The apparatus of claim 9 wherein the
2 controller further configured for determining modifications when
3 the user is presence and when the user is not presence; and
4 the controller calculating a threshold from the
5 determined modifications indicating the presence or non-
6 presence of the user.

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1 11. (Original) The apparatus of claim 9 wherein the
2 audio information is at one of within human hearing, above
3 human hearing and below human hearing.

1 12. (Original) The apparatus of claim 11 wherein the
2 type of the audio information is controlled by the controller.

1 13. (Original) An apparatus for detecting presence of
2 a user at a telecommunication terminal, comprising:
3 an echo canceller for canceling echoes caused by
4 acoustic paths to audio information from and back to the echo
5 canceller; and
6 a controller responsive to changes in the echo
7 canceller for determining the presence and non-presence of the
8 user at the telecommunication terminal.

1 14. (Original) The apparatus of claim 13 wherein the
2 audio information is at one of within human hearing, above
3 human hearing and below human hearing.

1 15. (Original) The apparatus of claim 14 wherein the
2 type of the audio information is controlled by the controller.

1 16. (Original) The apparatus of claim 13 wherein the
2 echo canceller comprises a model of the acoustic paths;

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3 a modifier for generating modifications to the model
4 based on changes to the acoustic paths; and
5 the controller responsive to the generated
6 modifications for determining the presence or non-presence of
7 the user at the telecommunication terminal.

1 17. (Original) The apparatus of claim 16 wherein the
2 modifier responsive to a difference in an output of the model of
3 the acoustic paths to audio information before transmission
4 from the echo canceller and received audio information via the
5 acoustic paths for generating the modification based on the
6 difference and the audio information before transmission.

1 18. (Amended) ~~An apparatus~~ A method for
2 determining presence of a user at a telecommunication
3 terminal, comprising:
4 ~~an echo detector for detecting echoes caused by~~
5 acoustic paths to audio information from an echo detector and
6 back to the echo detector by the echo detector; and
7 ~~a controller responsive to changes in the echo~~
8 ~~detector for determining~~ in response to changes in the echo
9 detector by a controller the presence and non-presence of the
10 user at the telecommunication terminal.

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1 19. (Amended) The apparatus method of claim 18
2 wherein the audio information is at one of within human
3 hearing, above human hearing and below human hearing.

1 20. (Amended) The apparatus method claim 19
2 wherein the type of the audio information is controlled by the
3 controller.

1 21. (Amended) The apparatus method of claim 18
2 wherein the echo detector comprises a model of the acoustic
3 paths;
4 a ~~modifier~~ for generating modifications to the model
5 based on changes to the acoustic paths by a modifier; and
6 ~~the controller responsive to the generated~~
7 ~~modifications for determining in response to the generated~~
8 modifications by the controller the presence or non-presence of
9 the user at the telecommunication terminal.

1 22. (Amended) The apparatus method of claim 21
2 wherein the modifier responsive to a difference in an output of
3 the model of the acoustic paths to audio information before
4 transmission from the echo detector and received audio
5 information via the acoustic paths for generating the
6 modification based on the difference and the audio information
7 before transmission.

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1 23. (Canceled)

1 24. (Canceled)

1 25. (Canceled)

1 26. (Canceled)

1 27. (Canceled)

1 28. (Canceled)

1 29. (Canceled)

1 30. (Canceled)

1 31. (Canceled)

1 32. (Canceled)

1 33. (Canceled)

1 34. (Canceled)

1 35. (Canceled)

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1 36. (Canceled)

1 37. (Canceled)